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STATEMENT OF THE HONORABLE STELLA B. HACKEL  
DIRECTOR OF THE MINT  
BEFORE THE SUBCOMMITTEE ON HISTORIC PRESERVATION AND COINAGE  
OF THE HOUSE COMMITTEE ON BANKING, FINANCE AND URBAN AFFAIRS

As Under Secretary Anderson has indicated, Mr. Chairman, my testimony will deal with the technical aspects of the dollar coin proposal. I appreciate this opportunity to appear before you, Mr. Chairman, in support of this proposal. If the proposed bill meets the approval of the Congress, it would result in a significant improvement in our coinage system.

The limited usefulness of the current dollar coin has been of concern to the Bureau for several years. It has been clear to us for some time that, primarily due to its cumbersome size and weight, the dollar coin cannot effectively serve as a medium of exchange. Our views have been reaffirmed by an independent study conducted by the Research Triangle Institute, concluded in 1976. It was the finding of the study that a smaller \$1 coin, sized between the current quarter and half-dollar, would be far more acceptable to the general public than the existing coin.

### PHYSICAL CHARACTERISTICS

In determining the appropriate physical size of a new coin, the Mint has considered several factors, including handling convenience and the potential for counterfeiting or slugging. The recommended weight of 8.1 grams is the lowest possible weight for convenient handling by the general public, while at the same time, being sufficiently heavy to be readily distinguishable from the quarter. The quarter weighs 5.67 grams, thus, the proposed coin would be 43% heavier than the quarter.

I should point out, Mr. Chairman, that the weight for the new dollar proposed in our legislation is specified as 8.5 grams. However, after submission of the proposal, we were advised by the coin sorting manufacturers that a dollar coin with a slightly lower weight would facilitate high speed coin sorting. Since coin sorting machines are used by all major retailers and banks, we feel this is a legitimate consideration; thus, we now recommend that the weight be changed in the proposed bill from 8.5 grams to 8.1 grams.

The new dollar would be distinguishable from the quarter by touch as well as by sight. The design proposed would have an eleven-sided inner border on both sides of the coin within the outer circular configuration. This design element would provide a means for tactile recognition by the visually handicapped.

For purposes of high utilization in automatic merchandising devices, it is essential that the size of the coin preclude the use of readily available low value foreign coins of identical size to slug the equipment. A diameter of 1.043 inches in size (26.5 millimeters) best meets this requirement and has been endorsed by the major manufacturers of automatic coin handling equipment.

Further, to prevent the slugging of the new coin by reducing the diameter of the current half-dollar, the thickness of the cupro-nickel outer layers would be increased. The clad layers would constitute 50% of the total thickness of the coin as compared to one-third in our current cupro-nickel clad on copper coins.

#### COMPOSITION

Except for the two minor coin denominations, the cent and the nickel, all circulating U.S. coins are made of a cupro-nickel alloy bonded on both sides to a pure copper core. This composition has many advantages, including superior surface wear and appearance, and relative low cost to produce. Overall it is approximately 90% copper, and economically, fabricated into coinage strip for high relief coins. Also, the unique electrical properties and density of this cupro-nickel ("sandwich") laminate make it very difficult to counterfeit or slug.

Many materials -- including several copper alloys, titanium, and other clad combinations -- were tested to determine the most suitable composition for the new coin. The results of the studies

indicate that the best overall material is a 75% copper/25% nickel alloy clad on a 100% copper core.

Except for the thickness of the cupro-nickel cladding for the new smaller dollar coin, this laminate is the same material now being used in all of our coin denominations other than the five cent and one cent coins. Manufacturing cost is estimated at 3 cents per coin compared to 8 cents for the current 1.5 inch diameter dollar coin.

#### DESIGN

Throughout our history various Liberty designs have been predominant on our circulation coins until the last few decades when, on historically significant occasions, U.S. Presidents were selected for such honor. Benjamin Franklin, who holds a unique position in our history, appeared on the half-dollar for a period of fifteen years, and is the lone exception to the abstract or Presidential designs.

The recommended design for the obverse is a modern or stylized female Liberty Head. This historic design appeared on the first U.S. coins minted in 1793, and appeared in various forms on almost all denominations of our coins through modern times. The female Liberty Head is symbolic of and honors all women rather than any particular individual. It is accompanied by the Phrygian Cap which has been a symbol of freedom for over 2500 years and has repeatedly appeared on our coins. It is most appropriate that such a historic American design once again return to an American coin.

The recommended design for the reverse is a Soaring or Volant Eagle. The eagle has appeared on the reverse of every dollar coin since 1794 with the exception of the gold coins. The recommended design, though similar to the 1916 quarter-dollar eagle, is a more vivid rendition emphasizing the independence and spirit which characterizes this national symbol.

Many distinguished American men and women have made substantial contributions to our country which are worthy of recognition. A select few have been honored on limited issue commemorative coins. The new dollar coin is intended to circulate widely; thus, a design consistent with the historical precedents established by the Secretary of the Treasury and the Congress would be most appropriate. In our view, expanding the field of design selection beyond historical abstracts and U.S. Presidents would set an unwise course in coin design, and invite a controversial debate which would tend to damage the overall success of the proposal.

#### EISENHOWER DOLLAR

As the Under Secretary noted in her testimony, the proposed bill would authorize the Department to continue the minting of the 40% Eisenhower silver dollar in its present size. If approved by the Congress, the bill would thus authorize the first commemorative U.S. coin to differ not only in design and alloy but also in size from the circulating coin of identical denomination.

PRODUCTION PLAN

At such time as the legislation is approved by the Congress, the Mint would immediately start the contracting process for the necessary coinage strip. This would take approximately three months; at that point, we could start the actual production of the coins. Were the recommended design adopted, approximately two months would be required for the Mint to complete the fabrication of dies and the procurement of the production tooling necessary for the new coin, during which time the coinage strip would also be procured.

Our plan is to undertake production at an accelerated rate, producing 500 million pieces of the new coin in six months, prior to their release to the public. Such a large inventory of coins prior to initial distribution would assure an equitable and adequate supply of coins throughout the Nation.

This statement concludes my prepared remarks, Mr. Chairman. I would be pleased to answer any questions you may have.

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